

AMENDMENTS TO THE CLAIMS

1. (Currently Amended) A packet search device that performs packet filter search for an inputted packet, comprising:

a first search processor that searches predetermined conditional statements corresponding to a plurality of information areas included in header information of said packet using a first search method to generate first search results; and

a second search processor that searches the first search results of said first search processor using a second search method that is different from said first search method,

wherein said first search processor divides said packet header information into a plurality of information areas and searches across each search conditional statements structured as binary search trees for each of said information areas separately, and

wherein said second search processor searches aggregated search results of said first search processor using a Hash method.

2. (Cancelled).

3. (Cancelled).

4. (Previously Presented) The packet search device according to claim 1, comprising a search database for managing each search result of said first and second search processors for each of said information area.

5. (Original) The packet search device according to claim 4, wherein said search database has a plurality of search keys.

6. (Currently Amended) The packet search device according to claim [[3]] 1, wherein said second search processor manages only combinations of search results.

7. (Original) The packet search device according to claim 1, wherein at least QoS (Quality of Service) information and filter information are searched for based on said header information.

8. (Original) The packet search device according to claim 1, wherein said packet search processing is performed at least in a router and a firewall.

9. (Currently Amended) A packet processing search method, on a packet search device that includes a first search processor and a second search processor, that searches for a packet filter for an inputted packet before performing packet processing, comprising:

a first step of the first search processor searching predetermined conditional statements corresponding to a plurality of information areas included in header information of said packet using a first search method to generate first search results; and

a second step of the second search processor searching the first search results at said first step using a second search method that is different from said first search method.

wherein in said first step the first search processor divides said packet header information into a plurality of information areas and searches across each search conditional statements structured as binary search trees for each of said information areas separately, and

wherein in said second step the second search processor searches aggregated search results of said first step using a Hash method.

10. (Cancelled).

11. (Cancelled).

12. (Original) The packet processing search method according to claim 9, wherein each search result at said first and second steps is managed for each of said information areas using a search database.

13. (Original) The packet processing search method according to claim 12, wherein said search database has a plurality of search keys.

14. (Currently Amended) The packet processing search method according to claim [[11]] 9, wherein in said second step the second search processor manages only combinations of search results.

15. (Original) The packet processing search method according to claim 9, wherein at least Qos (Quality of Service) information and filter information are searched for based on header information in said packet.

16. (Original) The packet processing search method according to claim 9, said packet search processing is performed at least in a router and a firewall.

17. (Currently Amended) A computer-readable medium storing a program for causing a program-controlled packet search device that includes a first search processor and a second search processor to perform a packet processing search method that searches for a packet filter for an inputted packet before performing packet processing, causing the program-controlled packet search device to execute,

first processing by the first search processor that searches predetermined conditional statements corresponding to a plurality of information areas included in header information of said packet using a first search method to generate first search results; and

second processing by the second search processor that searches the first search results of said first processing using a second search method that is different from said first search method,

wherein in said first processing the first search processor divides said packet header information into a plurality of information areas and searches across each search conditional statements structured as binary search trees for each of said information areas separately, and

wherein in said second processing the second search processor searches aggregated search results of said first step using a Hash method.